"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

amounts during measurement and to compute the ratio of their yields in the nuclear reaction. The authors expressed their gratitude to B.M.Isayev, I.P.Selinov, Ye.Ye. Baroni and Ye.N.Khaprov. There are 3 figures, 3 tables, and 8 references, 3 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos.universiteta im.A.A.Zhdanova (Scientific Research Institute of Physics at the Leningrad State University imeni A.A.Zhdanov)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

20-119-6-20/56

AUTHORS: Avotina, M. P., Grigor'yev, Ye. P., Zolotavin, A. V., Kratsik, E.

TITLE: The Radiation From Tb^{160} (Izlucheniye Tb^{160})

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 119, Nr 6, pp. 1127-1130 (USSR)

ABSTRACT: The continuous spectrum, the spectrum of conversion electrons and the spectrum of photoelectrons from radioactive Tb^{160} was measured by the authors by means of a spectrometer with double focussing. The sample was produced by irradiation of chemically pure Tb_2O_3 with slow neutrons. The continuous spectrum was examined by means of a source with a thickness of $\sim$1mg/cm^2, which was produced by coating Tb_2O_3 on a mica base with a thickness of $\sim$1,5 mg/cm^2. The results of the measurements are compiled in a table. The conversion spectrum was measured by means of sources with a thickness of from 4 to 5 mg/cm^2. 19 lines were found, pertaining to 11 transitions to Dy^{160}. These results are also compiled in a table.

Card 1/3

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

The general form of the β-spectrum is illustrated by a figure. The lines pertaining to the transitions to Dy^{160} with the energies 878 and 965 keV are double. These two transitions were also investigated in the decay of Tb^{160}. The line corresponding to the transition with the energy 877 keV is either a single line or its weak component is so soft, that it cannot be separated from the harder line. The relative intensities of the γ-transitions were determined by division of the areas covered by the respective lines by the corresponding coefficient of photoelectronic absorption. The authors compared the relative intensities of some radioactive isotopes (e. g. J^{131}, Sb^{124}) known from publications with the intensities obtained on the basis of the measurements of the photo lines. For the discussed measurements the internal diameter of the source amounts to 0,3 mm. Therefore it should be possible to determine correctly the relative intensities in a wide energy range. The authors attempted the separation of the line 967 keV

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

into its two components. The results of the measurements prove the existence of two components, the ratio of their intensities, however, could only be roughly estimated: $I_{961}/I_{964} = 1\ ^{+1,0}_{-0,5}$. There are 3 figures, 4 tables, and 2 references, 2 of which are Soviet.

ASSOCIATION: Fizicheskiy institut Leningradskogo gosudarstvennogo universiteta im. A. A. Zhdanova (Physics Institute of Leningrad State University imeni A. A. Zhdanov)

PRESENTED: September 13, 1957, by A. A. Lebedev, Member, Academy of Sciences, USSR

SUBMITTED: September 10, 1957

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, YE. P.

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

YUSHKEVICH, O.F., otv. za vypusk; GRIGOR'YEV, Yo.P., red.; BREDIKHIN, A.M., kontrol'nyy red.

[Instruments based on the application of radioisotopes and radiation; catalog] Pribory, osnovannye na primenenii radioaktivnykh izotopov i izluchenii; katalog. Moskva, 1959. 31 p. (MIRA 12:11)

1. Mezhdunarodnaya peredvizhnaya vystavka priborov i sredstv izmereniya, primenyayemykh pri issledovaniyakh v sel'skokhozyaystvennykh nauchnykh uchrezhdeniyakh.
(Radioisotopes--Industrial applications) (Instruments)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

SOV/120-59-4-22/50

AUTHORS: Grigor'yev, Ye. P., Zolotavin, A. V.

TITLE: Determination of the Form of the Pole Piece of a Magnet, Taking into Account the Edge Effect

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 4, pp 97-99 (USSR)

ABSTRACT: The problem which the authors had to solve was that of finding the pole piece profile for a β-spectrometer with double focussing and ensuring that the electron beam is focussed even in the regions close to the edges of the magnet. Since the edge effect problem has not as yet been solved, the authors use a semi-empirical scheme which ensures that the required field distribution is realized to about 1.5%. If the method is used to reshape the pole pieces again, the required field may be obtained with an accuracy of 0.3%. Fig 3 shows the final profile of the spectrometer pole piece, ensuring double focussing over an angle of $\pi\sqrt{2}$ for the field suggested by Pavinskiy in Ref 6. The equilibrium orbit radius is 125 mm. The profile was calculated assuming μ = const along r . The experimental field coincides with the theoretical over 7% of the gap

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

Determination of the Form of the Pole Piece of a Magnet, Taking into Account the Edge Effect

radius. Acknowledgment is made to B. S. Dzhelepov for valuable discussions. There are 5 figures and 7 references, of which 3 are Soviet, 1 Swedish and the rest are English.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: June 28, 1958.

Card 2/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

21(3) SOV/48-23-2-2/20

AUTHORS: Grigor'yev, Ye. P., Zolotavin, A. V., Klement'yev, V. Ya., Sinitsyn, R. V.

TITLE: Determination of the Relative Intensities and Conversion Coefficients of Transitions Produced During the Decay of Se^{75} (Opredeleniye otnositel'nykh intensivnostey i koeffitsiyentov konversii perekhodov, voznikayushchikh pri raspade Se^{75})

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 2, pp 159-184 (USSR)

ABSTRACT: At the beginning, the authors report on data obtained up to now on the $Ge^{75} \longrightarrow As^{75} \longleftarrow Se^{75}$ decay, and the spectrometers, sources and conditions of measurement of the investigations explained in this paper are described as follows: the magnetic spectrometer used for measurement had a double focusing, and the half width of electron lines in the spectrometer conditioned by the apparatus amounted to 0.4%. The conversion spectrum was measured in the presence of radiation sources of different thickness: 0.05, 0.25, 5 mg/cm^2. For the purpose of determining the spectral lines of photoelectrons thin targets of silver, lead, bismuth and other elements were used. The determinations covered 1) the relative intensities I_γ of the spectral lines

Card 1/5

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

Determination of the Relative Intensities and Conversion Coefficients of Transitions Produced During the Decay of Se^{75}

of photoelectrons of Se^{75}; the authors recorded the whole spectrum with Bi-target σ = 0.1 mg/cm^2, the energy range up to $\sim$ 100 kev with Ag-targets σ = 0.25-0.03 mg/cm^2, the range up to 401 kev inclusive with As-target, σ = 0.25 mg/cm^2, the line 572 kev with particularly thick Ta, Pb, and Bi-targets up to σ = 80 mg/cm^2 (Figs 2-6). The energies obtained and the corresponding I_γ are listed in table 1. The intensity of the transition $h\nu$ = 265 kev was assumed as a reference quantity equal to 100. For comparison, tables 1 and 2 contain also data obtained by other authors. For the purpose of checking the spectral sensitivity of the apparatus the relative intensities of γ-lines of Sb^{124} were compared with the values mentioned in paper (Ref 47), in which investigations were carried out by means of the calibrated standard γ-spectrometer "Elotron" (Tables 4, 5 and table 6 give a comparison with Tb^{160}). A possible error in the determination of $I_\gamma \leqslant 15\%$ results from the comparisons. 2) The authors measured the electron spins of internal conversions of Se^{75}. They obtained 26 conversion lines produced by 12 transitions in As^{75} (Figs 7-12),

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

Determination of the Relative Intensities and Conversion Coefficients of Transitions Produced During the Decay of Se^{75}

among which there are also the lines of Auger electrons K-LL, K-LM, K-MM. Their energies, intensities I_γ and origin are listed in table 7. According to a comparison with data obtained by other authors the best accordance was found with Schardt and Welker (Ref 10). For the purpose of determining the conversion coefficients from I_γ and I_K two methods were applied: a) from a comparison of the experimental values I_K/I_γ with the conversion coefficients of transitions 265, 280, 305, 401 kev according to Bashilov and Il'in (Ref 45)(Table 8); the mean value $\alpha_K/(I_K/I_\gamma)$ was used for determining the conversion coefficients of the other transitions; b) from the E1 transition of the transitions 121, 235, 401 kev the conversion coefficients of the other transitions were determined in the above-mentioned way. The values obtained in both ways agree well with one another. On the basis of a comparison between the theoretical and experimental values α_K the authors determined the multipole order of all transitions obtained (Table 9). According to the analysis of the scheme of As^{75} decay by means of Coulomb excitation and inelastic neutron

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

Determination of the Relative Intensities and Conversion Coefficients of Transitions Produced During the Decay of Se^{75}

scattering the authors determined the existence of the excitation states ~200, 281, 574, 780, 814, 1020, 1250, 1633 kev. The spectrum of Ge^{75} was studied by the method of β^{-}-γ-coincidence and the levels 199, 265, 477, 628 kev were obtained (Table 10). The γ-spectrum and γ-γ-coincidence from papers (Refs 10 and 25) are given in table 11. Furthermore, the quantum characteristics of the ground state As^{75}, Se^{75}, Ge^{75} were determined to be $3/2^{-}$, 5/2, $1/2^{-}$. The quantum characteristics of the levels 265, 280 and 401 kev were determined as well. The intensity equilibrium in the Se^{75} decay is mentioned in tables 13, 14. The quantities $\lg ft$ are in accordance with selection rules. According to these results the scheme of the $Ge^{75} \longrightarrow As^{75} \longleftarrow Se^{75}$ decay is established (Fig 13). Similarities of parity with neighboring nuclei are contained in table 15. On the basis of the one-particle model the authors give two possible explanations of the ground state of the nuclei $_{34}Se^{75}_{41}$ and $_{33}As^{75}_{42}$ as well as of the levels of As^{75} at 199, 256, 280, 305 and 401 kev in table 17. There are 13 figures, 17 tables, and 55 references, 19 of which are Soviet.

Card 4/5

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

SOV/48-23-2-2/20

Determination of the Relative Intensities and Conversion Coefficients of Transitions Produced During the Decay of Se^{75}

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A. A. Zhdanova
(Scientific Research Institute of Physics of Leningrad State University imeni A. A. Zhdanov)

Card 5/5

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

21(7) SOV/48-23-2-4/20

AUTHORS: Grigor'yev, Ye. P., Dzhelepov, B. S., Zolotavin, A. V.

TITLE: Decay of $Yb^{166} \rightarrow Tu^{166} \rightarrow Er^{166}$ (Raspad $Yb^{166} \rightarrow Tu^{166} \rightarrow Er^{166}$)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 2, pp 188-190 (USSR)

ABSTRACT: An error occurred in the spectral analysis of this reaction since the energies of the most intense transitions in Tu^{166} produced by decay of Yb^{166} and in Er^{166} produced by Tu^{166} were near 80 kev in both cases. For the purpose of explaining and determining the levels the authors studied the conversion spectra by means of the β-spectrometer with double focusing and a half width of lines of 0.3%. The resolving power permitted the separation of $L_I + L_{II}$, L_{III} and M and N lines.

Table 1 shows the corresponding lines of transitions 81.0 kev in Tu^{166} and 79.4 kev in Er^{166}. Transition 79.4 in Er^{166} agrees well with the theoretical transition type E2. M1 represents the transition type at 81.0 kev in Tu^{166}. A distinctly marked difference results from a comparison of the relative intensities of conversion lines of Tu^{166} and Er^{166} in

Card 1/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

equilibrium state with values obtained by other authors (Ref 3) (Table 2). The conversion coefficient for Er^{166} with $\alpha_K = 1.8$ for E2 transition and Tu^{166} for transition M1 amounts to 3 ± 1 and 4, respectively. The ratio of intensities of the individual transitions in Tu^{166} and $Er^{166} = 0.75 \pm 0.3$. The authors thank the researchers of the OIYaI and RIAN for radioactive sources, O. V. Larionov, M. K. Nikitin,, researchers of the LGU for separation of the Yt- and Tu fraction, as well as L. K. Peker for discussions. There are 3 figures, 4 tables and 5 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A. A. Zhdanova
(Scientific Research Institute of Physics of Leningrad State University imeni A. A. Zhdanov)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

21(7) SOV/48-23-2-5/20

AUTHORS: Grigor'yev, Ye. P., Zolotavin, A. V., Kratsik, B.

TITLE: Radiation of Tb^{160} (Izlucheniye Tb^{160})

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 2, pp 191-203 (USSR)

ABSTRACT: In the present paper the authors investigated the β-spectrum and the spectra of internal and external conversions of β-transitions accompanying Tb^{160} decay. In addition to experimental data known about Tb^{160} (Refs 1, 2), this paper contains further data on the β-spectrum with thin radiation sources as well as on some transitions between the levels of the Dy^{160} nucleus. Tb_2O_3 with a purity of 99.99% was irradiated in the reactor. Within the individual ranges of energy < 250 kev, 200 - 600 kev, > 600 kev sources with different surface density were used. Data and comparison with results obtained by other authors are contained in table 2. The analysis of the spectrum obtained was performed on the assumption of a Fermi shape and a unique shape of the spectrum according to the method devised by Curie-Richardson-Fakstone. The

Card 1/ 3

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

authors obtained excitation levels from which β-transitions occurred at 1565, 1358, 1264, 966, 865 kev. The level 1156 kev resulted from the decay of Ho^{160}. Limit energies and relative intensities of the softer components coincide in both analyses. The spectrum of conversion electrons was recorded with the sources applied in recording the β-spectrum. Besides the transitions already obtained an additional one was found at 289 kev. The other resulting energies and intensities are in accordance with those of the β-spectrum. (Table 3). The conversion lines of the transition at 1273 kev were studied and it was found that they are composed of the lines K-1273, L-1273 and K-1314. The spectrum of γ-rays was measured by means of Ag, Au, Bi and Th targets. The conversion coefficients were compared to the theoretical values contained in paper (Refs 14, 19), in which the 1973 kev transition was regarded as an E2 transition. The multipole orders of the individual transitions were determined according to the theoretical and experimental values of α_K.

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

The theoretical values were adopted from tables published by Sliv and Band (Refs 14, 19). On the basis of the results obtained the decay scheme was established, which was discussed in detail. For the purpose of determining the intensities and intensity equilibria the intensities of transitions into the ground state with $\bar{I}_{\gamma 86} + \bar{I}_{\gamma 966} + \bar{I}_{\gamma 1201} = 100$ were used. There are 5 figures, 9 tables, and 20 references, 11 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A. A. Zhdanova
(Scientific Research Institute of Physics of Leningrad State University imeni A. A. Zhdanov)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

SOV/48-23-7-17/31

21(7)

AUTHORS: Grigor'yev, Ye. P., Dzhelepov, B. S., Zolotavin, A. V.

TITLE: On the Transitions $Er^{160} \rightarrow Ho^{160}$ and $Yb^{166} \rightarrow Tu^{166}$ (O perekhodakh $Er^{160} \rightarrow Ho^{160}$ i $Yb^{166} \rightarrow Tu^{166}$)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 7, pp 864-867 (USSR)

ABSTRACT: In the introduction, it is ascertained that in a number of papers the decays $Er^{160} \rightarrow Ho^{160} \rightarrow Dy^{160}$ and $Yb^{166} \rightarrow Tu^{166} \rightarrow Er^{166}$ have been investigated, and that the authors in the present paper are concerned with some peculiarities of the first transitions of these chains. It is pointed out that two isomeric states of the isotope Ho^{160} are known, which have different half-lives and the quantum characteristic of which is not known. By theoretical investigations, it was found out that the lower excited states of the odd-odd nuclei must necessarily have two levels which have the same parity. The types of the states of the isotope Er^{160} are investigated. Allowed and first forbidden decays take place in the isotope

Card 1/3

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

Er^{160}, and it is concluded that the energies of the transitions $Er^{160} \longrightarrow Ho^{160}$ do not exceed 1 Mev. The authors further assert that the Er^{160}-decays passing the so-called five-hour isomer do not take place on the levels $5^+, 2^-$ and 2^+ but on any other higher level . In the investigation of the decay $Yb^{166} \longrightarrow Tu^{166}$ it is first ascertained that the odd-odd nuclei of the isotope Tu^{166} have an excited level with the energy of 81 kev, and they are assigned to the type M1. Further it is stated that other levels of the isotope Tu^{166} are not known, and that a positron spectrum corresponding to the transition $Yb^{166} \longrightarrow Tu^{166}$ was not found. The mass defect of the Yb^{166}- and Tu^{166}-nuclei is indicated with 117 kev (according to Cameron) and with 436 kev (according to Riddel), and the decay energy of Yb^{166} is evaluated with not over 1,000 kev. The authors thank

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

L. N. Zyryanova for contributing her knowledge on the β-systematics, and L. K. Peker for the discussion of the results. There are 3 figures and 19 references, 8 of which are Soviet.

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A. A. Zhdanova
(Scientific Research Institute of Physics of the Leningrad State University imeni A. A. Zhdanov)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

SOV/48-23-7-18/31

21(7)

AUTHORS: Grigor'yev, Ye. P., Dzhelepov, B. S., Zolotavin, A. V., Kratsik, B., Bitterlikh, G.

TITLE: The Decay of Ho^{160} and the Level Scheme of Dy^{160} (Raspad Ho^{160} i skhema urovney Dy^{160})

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 7, pp 868-874 (USSR)

ABSTRACT: In a previous paper (Ref 1), the authors had already determined the level scheme of Dy^{160}, but in considering all factors they come to the result that the upper level does not amount to 1718 kev, but that in the decay of the isotope Ho^{160} excited states with energies up to 2900 kev occur. In the present paper, results of an investigation of the transitions with high levels of the isotope Dy^{160} are put forward. The spectra of the positrons and of the electrons of the internal conversion were recorded by a β-spectrometer. The obtaining of the radioactive sources is dealt with, and the investigation of the β^+-spectrum in the range of weak energies is described. In the range under

Card 1/3

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

160 kev, a positron excess is observed which is connected with a soft component. The components of the spectrum are shown in a diagram (Fig 1). The balance of the intensities for the transitions in the isotope Ho^{160} shows that the transition with 60 kev amounts to 60% of the decay. It is further concluded that the number of positrons in the decay is equal to 0.36%. The authors found 55 new conversion lines which are compiled in table 2 together with the known lines. The experimental results were compared with the theoretical results, and it became clear that some L-lines are superimposed by K-lines of other transitions. Figures 2 and 3 show two ranges of the spectrum of the conversion electrons, the half-width of these lines is indicated, and it is ascertained that in figure 2 there is a group of lines the identification of which is very difficult. From the results obtained hitherto in this

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

paper, and in other papers, the extensive level scheme of the isotope Dy^{160} is set up, and the balance of the intensities in Ho^{160} is evaluated. There are 4 figures, 3 tables, and 4 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A. A. Zhdanova
(Scientific Research Institute of Physics of the Leningrad State University imeni A. A. Zhdanov)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

24(5)
AUTHORS: Grigor'yev, Ye. P., Zolotavin, A. V. SOV/56-36-2-7/63

TITLE: On the Relative Probabilities of the Photoeffect in Shells and Subshells of the Atom (Ob otnositel'nykh veroyatnostyakh fotoeffekta na obolochkakh i podobolochkakh atoma)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959, Vol 36, Nr 2, pp 393-400 (USSR)

ABSTRACT: In their introduction the authors first discuss several theoretical works concerning investigations of the photoeffect in the K-shell; Heitler (Gaytler)(Ref 1) investigated the relativistic case and supplied a formula of the photoeffect cross section in Born's approximation, Stobbe (Shtobbe)(Ref 2) and Hall (Kholl)(Ref 3) published more accurate results. Sauter (Zauter)(Ref 4) and Hulme (Khulm)(Ref 5) calculated the probability for the photoeffect in Born's approximation by using a relativistic wave function, and Hall (Ref 6) derived a simple formula for $h\nu \gg mc^2$. Hulme et al. (Ref 7) calculated τ_K still more accurately for 3 elements and 2 different γ-energies. Experimental works: a) Marty (Marti)(Ref 8), measurements of

Card 1/5

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

the relative photoabsorption coefficient τ_K/τ_L for 140 and 411 kev. Comparison between experimental results and Hall formula for the relativistic case of Grigor'yev and Zolotavin et al. (Ref 9); b) Davidson and Latyshev (Ref 10) measurement of τ_K/τ_L for E_γ = 2614 kev as amounting to 4.8(Pb) and 5.3(Ta). In references 11 and 12 Latyshev found the values 4.9 and 5.4 respectively. c) Bazin (Ref 13) measured the photoabsorption coefficient for the molybdenum line K_{α_1} ($h\nu$ = 17.5 kev) on several targets. The results obtained for sulfur, chromium, silver, and selenium are given. d) Kavalov, Hultberg (Khultberg), and Andersson (Ref 14) found τ_K/τ_L = 5.5 (uranium target) for E_γ = 516 and 880 kev. The results published in the following by the authors of this paper were obtained from decay investigations of various isotopes which were carried out in the course of the past 5 years. Measurements were carried out by means of a β-spectrometer (cf. Ref 15). The lines of photoelectrons, produced by the absorption of monochromatic γ-radiation on K-, $L_{I,II,III}$ and M+N shells of various

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

elements were investigated. The lines had an (energy-dependent) half width of 0.4 - 0.8%. An axially symmetric source and a thin target were used in this case (cf. Fig 1 and Refs 16, 17). It is assumed with justification that the angular distribution of the photoelectrons in energy intervals (0.1-2.0) Kev, which varies with quantum energy within the limits of 15%, does not influence results. The following was determined:

1) The ratio $(\tau_{L_I} + \tau_{L_{II}})/\tau_{L_{III}}$. Results are shown by table 1 and by figures 2 and 3. The table shows the measuring data, compared with theoretical data, for 4 different $h\nu$-values. Z = 83, bismuth target 0.1 mg/cm^2, γ-sources: Se^{75} and Tb^{160}. Figure 2 shows the L_I+L_{II}- and the L_{III}-line of the photoelectrons of γ-rays from Tb^{160} with E_γ = 86.6 kev, Bi-target 0.25 mg/cm^2, figure 3 shows the same lines for E_γ = 265 kev from Se^{75} with Bi-target 0.1 mg/cm^2.

2) The ratio τ_L/τ_M was determined for γ-radiation of various

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

On the Relative Probabilities
of the Photoeffect in Shells and Subshells of the Atom

energies on various targets as amounting to $\tau_L/\tau_M = 3.5 \pm 0.5$.

3) The ratio τ_K/τ_L. Table 2 contains the measuring results for different targets (Ag, Sb, Pt, Au, Pb, Bi, Th) of different thicknesses (0.25 - 13.0 mg/cm^2) and for different γ-energies (121 - 1696 kev). Figures 4a,b show the K- and the L and M+N-peaks of photoelectrons with use of γ-radiation of J^{131} with an energy of 364 kev; Bi-target, 3 mg/cm^2. Figure 5 shows the dependence τ_K/τ_L on Z in comparison with the results obtained by other authors. Figure 6 shows the dependence τ_K/τ_L on E_γ for targets from heavy elements, and figure 7 shows the same for silver- and antimony targets.

4) The share of τ_K in the total absorption coefficient . Figure 8 shows the dependence τ_K/τ on Z in comparison with the theoretical Allen's curves.

Card 4/5

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

The authors in conclusion thank Professor B. S. Dzhelepov for his advice and discussions, and N. A. Bonch-Osmolovskaya for allowing them to make use of his survey of the photoeffect before its publication. There are 8 figures, 2 tables, and 20 references, 7 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet (Leningrad State University)

SUBMITTED: August 16, 1958

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

S/048/60/024/03/12/019
B006/B014

AUTHORS: Grigor'yev, Ye. P., Avotina, M. P.

TITLE: A Comparison Between the Theory of Nonaxial Nuclei and Experiment

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 3, pp. 324-335

TEXT: The article under review was read at the Tenth All-Union Conference on Nuclear Spectroscopy (Moscow, January 19 - 27, 1960). The theory of deformed nuclei put forward by Bohr and Mottelson is in close agreement with experimental results within the ranges $150 < A < 190$, and $A > 122$, especially concerning the theoretical prediction of transition probability ratios. Near the limits of this range (for Sm^{152}, Gd^{154}, Os^{186}, Os^{188} and Os^{190}), however, experimental observations partly deviate from theoretical predictions considerably. A. S. Davydov, G. F. Filippov, and V. S. Rostovskiy (Refs. 6-9) developed a theory of rotational levels of even-even nuclei based on the assumption that the

Card 1/4

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

A Comparison Between the Theory of Nonaxial Nuclei and Experiment

S/048/60/024/03/12/019
B006/B014

nuclei have a non-axisymmetric equilibrium shape. The deformation parameter γ is between 0° and 60°. These two limits correspond to the cases of axial symmetry. $\gamma = 30°$ describes the maximum of deviation from axial symmetry (ellipsoid of revolution). The conclusions to be drawn from this theory are discussed here, and it is shown that experimental results (concerning the nuclei on the edges of the above-mentioned range of atomic weight) may be better described by corrections to level energies based on this theory. Davydov and Filippov derived formulas for determining the level energy as functions of γ; here, the energy is given in units of $\hbar^2/4B\beta^2$. The respective functions $E = f(\gamma)$ for a series of elements as compared to experimental results are given in Fig. 1 (B is the inertia parameter, β the deformation parameter). The formulas for the energies of 2^+, 5^+, and 3^+ levels are given by equations (1), (2), and (3). The theory of nonaxial nuclei permits a determination of the probabilities of E2 transitions between all rotational levels. These probabilities are functions of γ. Equations (9)-(11) give three such formulas. Theoretical transition probabilities are compared with experimental values in Figs. 2 and 3. Next, the

VC

Card 2/4

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

A Comparison Between the Theory of Nonaxial Nuclei and Experiment

S/048/60/024/03/12/019
B006/B014

authors discuss the portions of E2- and M1 multipoles in $2_2^+ \rightarrow 2_1^+$ transitions which result from Davydov's theory. The second part of the present paper deals with a comparison between theoretical relations and experimental results. Theoretical corrections to the level energies for 15 nuclei are contained in Table 1. The transition probability ratios for several E2 transitions are discussed, and the intensity ratios $\delta^2 = \frac{I(E2)}{I(M1)}$ for $2_2^+ \rightarrow 2_1^+$ transitions resulting from Davydov's theory are given and compared with experimental results (Table 2). Experimental data on nuclei the spectra of which may be explained by the theory of nonaxial nuclei, are supplied in a table attached to this paper. In conclusion, it is noted that Davydov's theory gives an exact definition of certain nuclear-spectroscopic data. The authors thank L. K. Peker and M. A. Listengarten for their assistance and interest. There are 3 figures, 3 tables, and 78 references, 16 of which are Soviet.

Card 3/4

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

S/048/60/024/03/12/019
B006/B014

A Comparison Between the Theory of Nonaxial Nuclei and Experiment

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A. A. Zhdanova (Scientific Research Institute of Physics of Leningrad State University imeni A. A. Zhdanov)

/C

Card 4/4

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

S/048/60/024/007/017/032/XX
B019/B056

24.6720

AUTHORS: Grigor'yev, Ye. P., Sakharov, S. L., and Sergeyev, V. O.

TITLE: The γ-Spectra of the Isotopes of the Lanthanum Fraction

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 839-840

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place from January 19 to January 27, 1960 at Moscow. The measurements were carried out by means of a scintillation γ-spectrometer. The lanthanum fraction of rare earths obtained by irradiation of tantalum with protons was investigated. The authors were able to find a very intensive 470-kev γ-line with a halflife of 18 hours. This line may be ascribed to the La^{135}. By using the decay scheme set up by Mitchell et al. (Ref. 2), it was possible to determine the relative yield of La^{135} in the nuclear reaction. From the discussion of their own results and those obtained by other authors, the authors draw the conclusion that, if La^{133} (halflife 4 hours) exists at all, it does not exceed 10% of La^{132}. This

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

The γ-Spectra of the Isotopes of the Lanthanum Fraction

S/048/60/024/007/017/032/XX
B019/B056

opinion is confirmed by results obtained by Riddel (Ref. 6) and Cameron (Ref. 7), which are given in Table 1. Therefore, the largest fraction of γ-emission is ascribed to La^{132}. The yield ratio of La^{132} to La^{135} is given as 100 : 80. There are 1 figure, 1 table, and 8 references: 1 Soviet, 6 US.

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A. A. Zhdanova (Scientific Research Institute of Physics of Leningrad State University imeni A. A. Zhdanov)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

85505

S/048/60/024/007/018/032/XX
B019/B056

24.6720

AUTHORS: Grigor'yev, Ye. P., Larionov, O. V., Nikitin, M. K., Sakharov, S. L., and Sergeyev, V. O.

TITLE: The Determination of the Halflife of Dy^{159}, Ho^{160*}, Tu^{166} and Lu^{173}

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 841-844

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place from January 19 to January 27, 1960 at Moscow. The isotopes investigated were obtained by the irradiation of Ta-targets with 660-Mev protons in the synchrocyclotron of the Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research) and a subsequent chemical and chromatographical separation. For determining the halflife an end-window counter was used, which was protected by a Pb-shield. As a control isotope, Dy^{159} was selected. The authors determined a half-life T = 139 ± 10 days, which agrees with the data obtained by other

Card 1/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

85585

The Determination of the Halflife of Dy^{159}, Ho^{160*}, Tu^{166}, and Lu^{173}

S/048/60/024/007/018/032/XX
B019/B056

authors. For Ho^{160*} a T = 4.76 ± 0.10 hours was determined. B. S. Dzhelepov et al. obtained T = 5.3 ± 0.2 hours, and G. M. Gorodinskiy et al. obtained 5 hours (Table 1), whereas Wilkins and Hiks obtained 4.6±0.1 hours. In Table 2 the value of T = 7.74 ± 0.08 hours determined is given for Tu^{166}. Gorodinskiy obtained T = 8, and Wilkins et al. T = 7.7 ± 0.1 hours. The halflife of Lu^{173} was determined by measurements, which extended over 9 months after separation of the lutetium fraction. The authors obtained T = 480 ± 30 days. The values obtained by other authors: Mihelich: 510 days; Wilkinson: 500 days; Bichard : 480 days; Gorodinskiy: 200 days; B. K. Preobrazhenskiy et al.: 150-200 days; V. Romanov et al.: 160 days. The three values showing considerable deviations were obtained at the Radiyevyy institut (Radium Institute), and at the Fiziko-tekhnicheskiy institut (Institute of Physics and Technology) at Leningrad. There are 5 figures, 3 tables, and 18 references: 6 Soviet and 12 US.

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A. A. Zhdanova (Scientific Research Institute of Physics of Leningrad State University imeni A. A. Zhdanov)

Card 2/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

85[illegible]

S/048/60/024/007/019/032/XX
B019/B056

24.6720

AUTHORS: Grigor'yev, Ye. P., Larionov, O. V., Nikitin, M. K., Sakharov, S. L., and Sergeyev, V. O.

TITLE: The γ-Spectra of the Isotopes of the Tantalum Fraction

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 7, pp. 845-846

TEXT: This paper was read at the 10th All-Union Conference on Nuclear Spectroscopy, which took place from January 19 to January 27, 1960 at Moscow. In the synchrocyclotron of the OIYaI, a Ta-target was irradiated with 660-Mev protons, following which, tantalum was separated and the radioactive Ta-isotopes were investigated by means of an automatic scintillation-γ-spectrometer. According to the halflife of the γ-lines, the Ta-isotopes may be subdivided into two groups. There are some isotopes with a halflife T of roughly 8 hours, and others with T = 53 hours. The energy and the relative intensities of the γ-lines of those Ta-isotopes whose T is about 8 - 11 hours, are given in Table 1:

Card 1/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

85586

The γ-Spectra of the Isotopes of the Tantalum Fraction

S/048/60/024/007/019/032/XX
B019/B056

E [kev]	55	115±5	210±10	270	350	500	1150	1700
I_γ	100	10	7	2	2	0.3	0.7	0.3

By comparison with data obtained by other authors, the authors draw the conclusion that in their Ta-fraction the isotopes Ta^{176} (8 hours) and Ta^{175} (11 hours) are present. In Table 2, the energies and the relative intensities of the hard γ-lines of the Ta-isotope of a halflife of 8 hours are given:

E_γ [Mev]	1.7	2.2 - 2.3	2.7	2.8
I_γ	3	1	0.3	1

These hard lines may possibly belong to a Ta^{176}-decay. From the data obtained here, the authors conclude that the mass difference between Ta^{176} and Hf^{176} is more than 3 Mev. There are 2 figures, 2 tables, and 7 references: 1 Soviet and 6 US.

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A. A. Zhdanova (Scientific Research Institute of Physics of Leningrad State University imeni A. A. Zhdanov)

Card 2/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

S/020/60/135/003/015/039
B019/B077

AUTHORS: Grigor'yev, Ye. P. and Dzhelepov, B. S., Corresponding Member of the AS USSR

TITLE: The Ho^{156} Decay

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 3, pp. 564-567

TEXT: The authors examined with a β spectrometer with a double focusing to an angle of $\pi\sqrt{2}$ the conversion spectrum of the radioactive Ho^{156} which has a half-life of 56 minutes. The authors produced the Ho^{156} isotope by bombarding tantalum with 660-Mev protons in the synchrocyclotron of the Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research). The Ho fraction was obtained through chromatographic separation of rare earths. The aim of the work was the more exact determination of the transition energies, the determination of the multiplicity and the plotting of the Dy^{156} level scheme. The exact half-life for the 366,7-kev transition was found to be 57 ± 3 minutes. Using the nuclear resonance the transition energy could be determined to an accuracy of

Card 1/3

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

The Ho^{156} Decay

0.05 - 0.10 %. Fig. 1 shows the level scheme as obtained from the test results. An extended discussion of the scheme points out the differences between the Bohr-Mottelson theory and the level schemes of neighboring isotopes. The authors thank V. A. Khalkin and I. A. Yutlandov for the separation of the Ho fraction. A. S. Basin, K. Ya. Gromov, N. A. Bonch-Osmolovskaya, B. S. Dzhelepov, O. Ye. Kraft, Chzhou Yuye-Va, and A. V. Kalyamin are mentioned. There are 1 figure, 5 tables, and 5 references: 4 Soviet and 1 US.

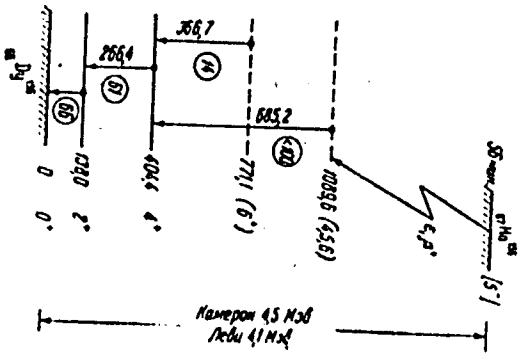
ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov) Radiyevyy institut im. V. G. Khlopina Akademii nauk SSSR (Radium Institute imeni V. G. Khlopin, Academy of Sciences, USSR)

SUBMITTED: July 27, 1960

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

S/020/60/135/003/015/039
B019/B077



Card 3/3

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, YE. P.

Cand Phys-Math Sci, Diss -- "Investigation of the radiation and decay patterns of As^{73}, As^{74}, Ho^{156}, Er^{160} + $Ho^{160}Yb^{165}$ + Tu^{166} and Lu^{168}". Leningrad, 1961. 7 pp, 20 cm (Radium Inst imeni V. G. Khlopin. Acad of Sci USSR), 200 copies, Not for sale, 16 ref in bibl on pp 6-7 (KL, No 9, 1961, p 175, No 24249). [61-52363]

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.P.; GROMOV, K.Ya.; DZHELEPOV, B.S.; ZHELEV, Zh.T.; ZVOL'SKA, V.; ZVOL'SKIY, I.

Decay of $Yb^{166} \rightarrow Tu^{166} \rightarrow Er^{166}$. Izv AN SSSR.Ser.fiz. 25 no.10:1217-1227 O '61. (MIRA 14:10)

1. Leningradskiy gosudarstvennyy universitet im. A.A.Zhdanova, Ob"yedinennyy institut yadernykh issledovaniy.
(Ytterbium--Decay) (Thulium--Decay) (Erbium--Decay)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.P.; GROMOV, K.Ya.; DZHELEPOV, B.S.; ZVOL'SKA, V.; ZOLOTAVIN, A.V.; VEYS, M.; VAN YUN-YUY [Wang Yung-Yü]

Decay of the two-hour isotope Lu^{168}. Dokl. AN SSSR 136 no.2:325-328 '61. (MIRA 14:1)

1. Leningradskiy gosudarstvennyy universitet imeni A.A. Zhdanova i Ob'yedinennyy institut yadernykh issledovaniy. 2. Chlen-korrespondent AN SSSR (for Dzhelepov).
(Lutetium—Isotopes)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

S/020/61/136/002/014/034
B019/B056

AUTHORS: Grigor'yev, Ye. P., Gromov, K. Ya., Dzhelepov, B. S., Corresponding Member of the AS USSR, Zvol'ska, V., Zolotavin, A. V., Veys, M., and Van Yun-yuy

TITLE: The Decay of the Two-hour Isotope Lu^{168}

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 2, pp. 325-328

TEXT: In the lutetium fraction forming in the course of an irradiation of tantalum with 660-Mev protons, conversion lines were discovered, which had a period of two hours. The authors investigated the lutetium isotope to which these lines belong. For this purpose they used a β-spectrometer with double focusing, the magnetic field was measured by means of proton resonance, and calibration was carried out according to exactly known lines. Recording was carried out by means of two Geiger-Müller counters. Three conversion lines with a period of (2.15 ± 0.20) hours were discovered; closer details are given in Table 1. By comparing the energy differences between these three lines with X-ray data, it was found that the Lu-isotope goes over into an ytterbium isotope. From the close study

Card 1/5

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

The Decay of the Two-hour Isotope Lu^{168}

S/020/61/136/002/014/034
B019/B056

of the known Lu-isotopes, of their decays, and their spectra, the authors come to the conclusion that the required isotope with a period of 2.15 hours must be $_{71}Lu^{168}$, which has an odd-odd deformed nucleus. Fig. 3 shows the decay scheme of this isotope. There are 3 figures, 3 tables, and 5 references: 4 Soviet and 1 US.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov)
Ob"yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: October 6, 1960

Card 2/5

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

ZUBOV, Vladimir Ivanovich. Prinimala uchastiye ZUBOVA, A.F.; KANAHEV, L.Ye., retsenzent; GRIGOR'YEV, Ye.P., nauchnyy red.; SACHUK, N.A., red.; KONTOROVICH, A.I., tekhn. red.

[Vibrations in nonlinear and controlled systems] Kolebaniia v nelineinykh i upravliaemykh sistemakh. Leningrad, Sudpromgiz, 1962. 630 p. (MIRA 15:6)
(Vibration) (Automatic control)
(Differential equations)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.P.; DZHELEPOV, B.S.; ZVOL'SKA, V.; ZOLOTAVIN, A.V.; MALYSHEVA, T.V.; KHOTIN, B.A.; ADAM, I.

Conversion electrons from short-lived platinum and tungsten isotopes. Izv. AN SSSR. Ser. fiz. 26 no.1:120-124 Ja '62. (MIRA 15:2)

1. Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gosudarstvennogo universiteta im. A.A.Zhdanova, Ob"yedinennyy institut yadernykh issledovaniy i Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo.
(Electrons)
(Platinum—Isotopes)
(Tungsten—Isotopes)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

S/048/62/026/012/007/016
B117/B186

AUTHORS: Grigor'yev, Ye. P., Peregud, B. P., Sergeyev, V. O., and Skopina, V. I.

TITLE: Decay of Tu^{166}

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 12, 1962, 1488 - 1491

TEXT: A check was carried out on the divergent statements on Tu^{166} decay in papers by Harmatz (B. Harmatz, T. H. Handley, J. W. Mihelich, Phys. Rev., 123, 1758 (1961)) and Grigor'yev (Ye. P. Grigor'yev, K. Ya. Gromov, B. S. Dzhelepov, Zh. T. Zhelev, V. Zvol'ska, I. Zvol'skiy, Izv. AN SSSR. Ser. Fiz., 25, 1217 (1961)). The quantum characteristics of the upper levels of Tu^{166} were determined more accurately. Experiments using a double focusing β-prism spectrometer and a γ-scintillation spectrometer confirmed as correct the results obtained by Grigor'yev et al. for the energies of the transitions and for the relative intensities of the conversion lines. The two high levels with energies of 2134 and 2161 kev are heavily occupied when Tu^{166} captures electrons; their β-transitions both take place to the

Card 1/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

same lower-lying level of Er^{166}. To determine their exact characteristics, the multipole orders of the γ-transitions with energies of 2054 and 2081 kev were calculated from the conversion coefficients α_K. It was shown that agreement between theoretical and experimental values is possible only if both transitions, or at least the one with an energy of 2054 kev, have a multipole order of M2. Transitions with an energy of 2054 kev take place from the 2134 kev energy level to the 2^+ level of the first rotational band. The 2134 kev energy level was assumed to have odd parity and, most probably, a spin of 3. This paper was read to the 12th Annual Conference on Nuclear Spectroscopy held in Leningrad from January 26 to February 2, 1962. There are 3 figures and 2 tables.

ASSOCIATION: Fizicheskiy institut Leningradskogo gos. universiteta (Physics Institute of the Leningrad State University); Fiziko-tekhnicheskiy institut Akademii nauk SSSR im. A. A. Zhdanova (Physicotechnical Institute of the Academy of Sciences USSR imeni A. A. Zhdanov)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

S/048/62/026/012/015/016
B117/B102

AUTHORS: Grigor'yev, Ye. P., Novikov, G. S., and Sergeyev, V.O.

TITLE: Genetic relation between the isomeric states of Ho^{160}

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 12, 1962, 1523 - 1524

TEXT: In order to determine the genetic relation between the 28-min Ho^{160} and the 4.7-hr Ho^{160} - i.e. to prove that the decay of the long-lived isomer occurs via a state with the half-life 28 min - γ-spectra of Ho^{160} in the range of 500 - 900 kev were investigated using a γ-scintillation spectrometer. It was shown that in the decay of Er^{160} purified from Ho^{160} the intensity of the 728-kev line increases in a different way from the intensity of the isomeric 60-kev transition and the transitions that occur in the Ho^{160*} isomer decay. Because of a comparative longevity of the Ho^{160} ground state the intensity of the 728-kev line increases after the separation of Er from Ho at first slowly and then rapidly. If the isomers Ho^{160} and Ho^{160*} are in equilibrium, the 728 kev-line can easily be distinguished

Card 1/3

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

Genetic relation between ...

from harder transitions of the Compton background. The half-life of the Ho^{160} ground state was difficult to estimate from the data obtained. In spite of this it could be concluded, that the 720-kev transition does not occur immediately after the β-decay of the 4.7-hr isomer but after the decay of the 28-min isomer. This paper was presented at the 12th Annual Conference on Nuclear Spectroscopy in Leningrad from January 26 to February 2, 1962. There are 2 figures.

ASSOCIATION: Nauchno issledovatel'skiy fizicheskiy institut Leningradskogo gos. universiteta im. A. A. Zhdanova (Scientific Research Institute of Physics of the Leningrad State University imeni A. A. Zhdanov)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, YE. P.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Radium Institute imeni V. G. Khlopin in 1962:

"Investigation of Radiation and Decay Schemes of As^{73}, As^{74}, Ho^{156}, Er^{160}, Ho^{160}, Yb^{166}, Tu^{166}, and Lu^{168}."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

ACCESSION NR: AP4025949 S/0056/64/046/003/1138/1139

AUTHOR: Grigor'yev, Ye. P.

TITLE: Half life of Tb-157

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 46, no. 3, 1964, 1138-1139

TOPIC TAGS: terbium 157, terbium 157 half life, decay rate, dysprosium 157 decay, tantalum proton bombardment, level scheme

ABSTRACT: The half-life of Tb^{157} was determined from the number of radioactive nuclei contained in the source and from the rate of decay $dN/dt = -N_0 \log 2/T$. The radioactive Tb^{157} was obtained as the product of the decay of Dy^{157} produced by bombarding tantalum with 660 MeV protons in the OIYaI synchro-cyclotron. The value obtained for the half-life is $T_{1/2} = (2.8 \pm 1.2) \times 10^2$ years, which agrees,

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

ACCESSION NR: AP4025949

within the limits of experimental error, with recent data obtained in Japan by S. Iwata et al. (Journal Physical Society Japan v. 18, 315, 1963), who obtained $T_{1/2} = 160 \pm 40$ years. "The author is grateful to K. Ya. Gromov for making it possible to complete this project, to A. F. Novgorodov and N. A. Lebedev for the repeated chemical separation of the samples, to A. N. Silant'yev for establishing the activity of the source, to N. I. Anton'yeva and V. B. Smirnov for the use of the spectrometer with the multichannel analyzer, to V. N. Pokrovskiy for the use of the Cs^{137} standard samples, to M. P. Avotina, V. G. Kalinnikov and V. O. Sergeev for their assistance in the measurements, and to L. K. Peker and V. G. Solov'yev for discussing the results." Orig. art. has: 1 figure.

ASSOCIATION: Fizicheskiy institut Leningradskogo gosudarstvennogo universiteta (Physics Institute of the Leningrad State University)

Card 2/4

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

ACCESSION NR: AP4025949

SUBMITTED: 28Jun63 DATE ACQ: 16Apr64 ENCL: 01

SUB CODE: NP NR REF SOV: 001 OTHER: 002

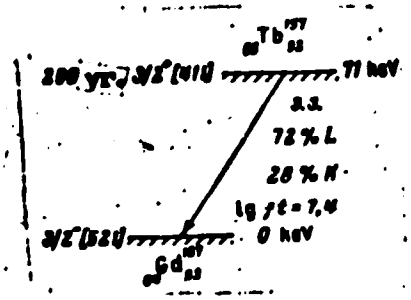
Card 3/4

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

ACCESSION NR: AP4025949

ENCLOSURE: 01



Decay Scheme of Tb^{157}

Card 4/4

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

L 23017-66 EWT(m)/EPF(n)-2/EWP(t)/EWA(h) JD/WW/JG
ACC NR: AP6014823 SOURCE CODE: UR/0367/65/001/006/0958/0960

AUTHOR: Avotina, M. P.; Grigor'yev, Ye. P.--Grigoryev, E. P.; Dzhelepov, B. S.; Zolotavin, A. V. 52 B

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: Three-hour activity of lutetium 71

SOURCE: Yadernaya fizika, v. 1, no. 6, 1965, 958-960

TOPIC TAGS: lutetium, isomer, tantalum, proton

ABSTRACT: The presence of the isomer Lu^{176m} among the products of the deep splitting of tantalum by 660 MEV protons is confirmed. The L_{II}-, L_{III}-, M_{II}-, M_{III}-, and N-line intensities of the 88.37 ± 0.03 KEV transition in Hf^{176} were measured. The authors thank K. Ya. Gromov for discussions of the results; N. A. Lebedev for the separation of the lutetium particles; V. Ye. Ter-Nersesyants and G. A. Mironov for assistance with the measurements. The work was carried out at the Joint Institute of Nuclear Research. Orig. art. has: 1 figure and 1 table. [Based on authors' Eng. abst.] [JPRS]

SUB CODE: 20 / SUBM DATE: 28Dec64 / ORIG REF: 005 / OTH REF: 003

2

Card 1/1 pla

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.F.; YEGOROV, Yu.S.; ZOLOTAVIN, A.V.; SERGEYEV, V.O., SOVTSOV, M.I.

On Mo^{90} decay. Izv. AN SSSR.Ser. fiz. 29 no.5:721-728 My '65. (MIRA 18:5)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

EWT(m) DIAAP JD/JG

ACC NR: AP6016390 SOURCE CODE: UR/0048/65/029/007/1098/1102

AUTHOR: Avotina, M. P.; Grigor'yev, Ye. P.; Dzhelepov, B. S.; Zolotavin, A. V. 51 B

ORG: Scientific Research Physics Institute, Leningrad State University (Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gosudarstvennogo universiteta)

TITLE: Auger electrons of Er sup 160 and Ho sup 160

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 7, 1965, 1098-1102

TOPIC TAGS: erbium, holmium, radioactive decay, dysprosium, proton, tantalum, spectrometer, radioisotope, electron

ABSTRACT: This article is a description of an experiment intended for further investigation of the proposed existence of a second exited level of Ho^{160}. In the experiment the K-capture during the decay of Er^{160} was determined according to the intensity of Auger K-LL-electrons of holmium and dysprosium occuring during the decay of Er^{160} and Ho^{160}. The Er^{160} was obtained by irradiation of tantalum with protons with an energy of 660 Mev and subsequent chemical and chromatic separation of the products of the reaction. The measurements were made on a β-spectrometer with double focusing at an angle of $\pi\sqrt{2}$. The measurements were made 50-70 hours after separation of the erbium fraction from the rare earths; therefore, a state of dynamic equilibrium was set up

Card 1/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

L 25763-66

ACC NR: AP6016390

during the time of the experiment between the various isotopes making up the decay chain. Analysis of the results shows that in spite of the high degree of accuracy in the determination of the intensity of Auger electrons, it is not possible to draw any conclusions regarding the nature of electron capture in Er^{160}. It is stated, however, that the results of the experiment do not contradict the earlier conclusion that it is necessary to introduce a second excited level of Ho^{+} with the characteristics 0^{+} and 1^{+}. It is concluded that the 1^{+} level must be close to the basic state of Ho^{+}, and apparently the decay of Er^{160} takes place at this level. Orig. art. has: 3 figures, 2 formulas, and 3 tables. [JPRS]

SUB CODE: 20, 18 / SUBM DATE: none / ORIG REF: 004 / OTH REF: 002

Card 2/2 LC

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

L 31404-66 EWT(m)
ACC NR: AP6022576 SOURCE CODE: UR/0048/66/030/003/0530/0553

AUTHOR: Avotina, M. P.; Grigoryev, Ye. P.; Dzhelepov, B. S.; Zolotavin, A. V.; Sergeyev, V. O.

ORG: Scientific Research Physics Institute, Leningrad State University (Nauchno-issledovatel'skiy fizicheskiy institut Leningradskogo gosudarstvennogo universiteta)

TITLE: Decay of Ho sup 160 [12] [This paper was presented at the 16th Annual Conference on Nuclear Spectroscopy and Nuclear Structure held in Moscow 26 Jan-3 Feb 1966]

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 3, 1966, 530-553

TOPIC TAGS: spectrometer, radioactive decay, nuclear physics conference, conversion electron spectrum, beta spectroscopy, particle accelerator target, synchrocyclotron, rare earth element, chromatography,

ABSTRACT: This is partly a review and partly an experimental paper reporting a continuation of work on the decay of Er^{160} + Ho^{160*} + Ho^{160} under improved conditions for studying the conversion electron spectrum. The study was carried out with two modernized, high-resolution, double focussing beta spectrometers: one with an equilibrium orbit of 140 mm; and the other, 500 mm. The Ho^{160*} and Ho^{160} samples were obtained from the isotope Er^{160}. A tantalum target was irradiated by 660 mev protons for 1.5 to 8 hrs. in a synchrocyclotron, and the rare earth group was separated chemically and then fractioned in a chromatographic column.

Card 1/2

0915 0589

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

L 31404-66

ACC NR: AP6022576

7

Extensive information was gathered on the conversion electron spectrum of Er^{160} + Ho^{160} and is presented in a 3-page table which shows transition energies, conversion lines, I_e, multipolarity of the gamma transition, conversion coefficient, gamma ray intensity, total intensity of the transition, and position of the transition in the decay scheme. Detailed data is also given on many Dy^{160} levels and transitions, and three rotational bands are established. Experimental results are compared with theory and the results of other authors. The multipolarity and intensity of the isomeric transition of Ho^{160} is discussed, as well as the quantum characteristics of its levels, positron decay, and electron capture. The authors thank K. Ya. Gromov and Zh. T. Zhelev for thier interest and assistance, L. K. Peker and V. G. Solov'ev for discussing the results, N. A. Lebedev for the chemical isolation of Er sup 160, and G. A. Mironov and M. I. Covtsov for help with the measurements. Orig. art. has: 8 figures and 10 tables. [JPRS]

SUB CODE: 20, 18/ SUBM DATE: none/ ORIG REF: 018/ OTH REF: 012

Card 2/2 pc

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.T., inzh.; KRAVCHENKO, A.I., inzh.; NESTEROV, S.D., inzh.

Transverse elastic truck couplers for electric locomotives. Vest. TSNII MPS 18 no.8:21-25 D '59. (MIRA 13:9)
(Electric locomotives)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.T., inzh.

Performance on curves of the N60 a.c.electric locomotive. Vest. TSNII MPS 20 no.4:19-24 '61. (MIRA 14:7)

1. Dnepropetrovskiy elektrovozostroitel'nyy zavod.
(Electric locomotives)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

KO, [illegible] IGOR'YEV, Ye.T.; MATUSEVICH, S.B.

Four-axle D100M a.c. electric locomotive. Elek. i tepl. tiaga [illegible] no. 7:7-11 Jy '61. (MIRA 14:7)

1. Spetsial'noye konstruktorskoye byuro Dnepropetrovskogo elektrovozostroitel'nogo zavoda (for Bezruchko). 2. [illegible] chal'nik otdela mekhanicheskoy chasti Spetsial'nogo konstruktorskogo byuro Dnepropetrovskogo elektrovozostroitel'nogo zavoda (for Grigor'yev). 3. Nachal'nik proyektno-montazhnogo otdela Spetsial'nogo konstruktorskogo byuro Dnepropetrovskogo elektrovozostroitel'nogo zavoda (for Matusevich).
(Electric locomotives)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

FEDEL', Vladimir Borisovich. Prinimal uchastiye GRIGOR'YEV, Ye.T., inzh.; PAKHOMOV, M.P., doktor tekhn. nauk, retsenzent; BOGDANOV, V.P., kand. tekhn.nauk, retsenzent; LISOVSKIY, A.S., kand. tekhn. nauk; KROVORUCHKO, N.M., inzh., red.; VOROTNIKOVA, L.F., tekhn. red.

[Design of the mechanical part of electric rolling stock] Proektirovanie mekhanicheskoi chasti elektropodvizhnogo sostava. Moskva, Transzheldorizdat, 1963. 422 p. (MIRA 16:10)

(Electric railroads--Rolling stock)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

L 29801-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k) IJP(c) WW/EM

ACC NR: AP6014217 SOURCE CODE: UR/0198/66/002/004/0039/0049

41
B

AUTHOR: Grigor'yev, Ye. T. (Dnepropetrovsk)

ORG: none

TITLE: Axially symmetric oscillation of shells with liquids 24

SOURCE: Prikladnaya mekhanika, v. 2, no. 4. 1966, 39-49

TOPIC TAGS: cylindric shell structure, nonlinear vibration, nonlinear differential equation, inviscid flow, ideal fluid

ABSTRACT: The nonlinear oscillations of a thin circular cylindrical shell, partially filled with an inviscid fluid, are calculated. The gravitational acceleration is assumed to be directed along the shell axis, the flow is considered irrotational, and the body forces--potential. The displacement potential Φ is determined by harmonic functions satisfying the boundary conditions

$$\frac{\partial \Phi}{\partial R} = w(x, t) \text{ for } R = R_0; \quad \frac{\partial \Phi}{\partial x} = u(0, t) + w_0(R, t) \text{ for } x = 0;$$

$$\frac{\partial^2 \Phi}{\partial t^2} + U + \frac{v^2}{2} + X(t) = 0 \text{ on } \sigma_0$$

Card 1/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

ACC NR: AP6014217

The displacement potential is then represented as the sum of the cylindrical shell deformation, the deformation of the shell bottom, and the oscillation of the free liquid surface. Expressions are derived for the liquid surface, normal component of the liquid velocity, the shell displacement (using the Bubnov-Galerkin method), and the pressure acting on the shell from the liquid side. Finally, the set of equations

$$\sum_l (a_{il}\ddot{q}_l + \beta_{il}q_l) + \sum_k (\lambda_{ik}\ddot{q}_{mk} + \gamma_{ik}q_{mk}) + \sum_m \lambda_{0im}\ddot{q}_{0m} = F_i(t), \qquad i = 1, 2, \ldots,$$

$$\sum_k (\mu_{ik}\ddot{q}_{mk} + c_{ik}q_{mk}) + \sum_l (\lambda_{li}\ddot{q}_l + \gamma_{li}q_l) + \sum_m \Delta_{im}\ddot{q}_{0m} + \varkappa_i\ddot{a}_1 +$$

$$+ E_{i1}\ddot{a}_1 a_1 + E_{i3}\ddot{a}_1 a_1^2 + E_{i4}\dot{a}_1^2 a_1 + E_{i5}\dot{a}_1^2 = 0, \qquad i = 1, 2, \ldots;$$

$$\sum_m (\mu_{0nm}\ddot{q}_{0m} + c_{0nm}q_{0m}) + \sum_l \lambda_{0ln}\ddot{q}_l + \sum_k \Delta_{kn}\ddot{q}_{mk} = 0, \qquad n = 1, 2, \ldots;$$

$$B_1\ddot{a}_1 + \varrho g a_1 + \sum_k \varkappa_k\ddot{q}_{mk} + B_2\ddot{a}_1 a_1 + B_3\ddot{a}_1 a_1^2 + B_4\dot{a}_1^2 + B_5\dot{a}_1^2 a_1 = 0,$$

is obtained for the oscillation of the shell-liquid system. A special example is considered to study the character of these oscillations, and the solution is obtained by successive approximations. Numerical values are given for the resonance conditions in the oscillation of the liquid-shell system. Orig. art. has: 26 equations.

Card 2/2 SUB CODE: 20/ SUBM DATE: 03Apr65/ ORIG REF: 003

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.V.; PLATONOV, G.M.; GOLUBENKO, N.I.; LOVCHINOVSKIY, E.V.

Improvement of the drive of a vibrating, self-balancing, and self-centering grizzly. Metallurg 10 no.5:14 My '65. (MIRA 18:6)

1. Metallurgicheskiy zavod imeni Dzerzhinskogo i zavod-vtuz imeni Arsenicheva.

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.Ye. (Leningrad)

Case of severe anaphylactic reaction after the administration of streptomycin. Klin.med. 38 no.10:123-124 O '60.
(MIRA 13:11)

1. Iz 3-y khirurgicheskoy kliniki (zav. - prof. N.I. Blinov) Gosudarstvennogo ordena Lenina instituta usovershenstvovaniya vrachey imeni S.M. Kirova.
(STREPTOMYCIN) (ANAPHYLAXIS)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

BLINOV, N.I., professor (Leningrad, Nevskiy pr., d.27, kv.69);
GRIGOR'YEV, Ye.Ye.

Adhesive disease and its treatment with Nobel's operation.
Vest.khir. no.1:63-68 '62. (MIRA 15:1)

1. Iz 3-y khirurgicheskoy kliniki (zav. - prof. N.I. Blinov)
Leningradskogo ordena Lenina instituta usovershenstvovaniya
vrachey (dir. - dotsent A.Ye. Kiselev).
(ADHESIONS (ANATOMY)) (SURGERY)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

[illegible]

Letters to the editor. [illegible] 46-47 [illegible] '61.
([illegible] 14:10)

1. Starshiy inspektor Ministerstva torgovli [illegible], g. Yoshkar-Ola (for [illegible]). 2. [illegible] restorana "Ukraina", g. Samber (for [illegible]). 3. [illegible] (for Fridman). 4. Nachal'nik [illegible] (for Golovatyy). 5. [illegible] stolovoy No.1, g. Taldy-Kurgan, [illegible] (for Gentareva).
(Restaurant lunchrooms etc.)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Yu.; MINAYEV, Yu.

Work practices on the tanker "Lyubertsy." Mor. flot 24 no.12:14-16 D '64. (MIRA 18:8)

1. Kapitan tankera "Lyubertsy" (for Grigor'yev). 2. Nachal'nik sluzhby ekspluatatsii Kaliningradskoy bazy rybolovnogo refrizheratornogo flota (for Minayev).

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Yu. A.

AID P - 1186

Subject : USSR/Electricity

Card 1/1 Pub. 29 - 8/27

Author : Grigor'yev, Yu. A., Eng.

Title : Ways of determining analogous coil terminals of induction motor windings

Periodical : Energetik, 12, 11-12, D 1954

Abstract : The author explains the methods recommended by the authors R. G. Gemke in his book Neispravnosti elektricheskikh mashin (Defects of Electrical Machinery), Gosenergoizdat, 1947 and B. A. Kudrov in his article in Energetik, 1953, No. 2. Two diagrams.

Institution : None

Submitted : No date

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

A.

GRIGOR'YEV, Yu. (g. Mytishchi, Severnaya zheleznaya doroga) GUMBURG, D. (g. Mytishchi, Severnaya zheleznaya doroga)

Improve signaling and communications work in railroad transportation. Sots.trud. no.2:137-138 F '57. (MLRA 10:5)
(Railroads--Signaling)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Yu.A.

Determining phase relationships in rail circuits. Avtom., telem. i sviaz' no.4:31 Ap '57. (MLRA 10:5)

1. Starshiy inzhener laboratorii signalizatsii i svyazi Severnoy dorogi.
(Railroads--Signaling)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

AUTHOR: Grigor'yev, Ye. S., Engineer (Severodvinsk) SOV/94-58-8-5/22

TITLE: Supplying Power to Circuits Using Selenium Rectifiers for Power-driven Carts (Pitaniye setey samokhodnykh telezhek s primeneniyem selenovykh vypryamiteley)

PERIODICAL: Promyshlennaya Energetika 1958 Nr 8, p 14 (USSR)

ABSTRACT: At the author's works power-driven trucks are used for inter-departmental transport. Each truck has a 6.2 kW motor driven by direct current from a trolley wire; the current is supplied by two welding generators connected in series. These generators have to be kept running all the time, which is uneconomical and the author suggested that they should be replaced by selenium rectifiers. Not enough selenium rectifier elements were available and so the voltage on each element was somewhat increased and the complete rectifier was installed in a tank of transformer oil. The circuit diagram is given. The installation has worked well for six months and even in summer the oil temperature did not exceed the limiting value for the rectifiers, which is 75°C. There is one figure.

Card 1/1

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.T., inzhener; KRAVCHENKO, A.I., inzhener.

Utilizing trailing weight of type 2-2 electric locomotives. Vest. TSNII MPS 15 no.2:22-25 S '56. (MLRA 9:12)

1. Novocherkasskiy elektrovozostroitel'nyy zavod imeni S.M. Budennogo.

(Electric locomotives)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.T., inzhener; KOCHURAYEV, L.D., inzhener; KUROCHKA, A.L. inzhener; SUSLOV, B.V., inzhener; TUSHKANOV, B.A., inzhener; SHAPIRO, I.L., inzhener.

Design features of the VI23 electric locomotive. Zhel.dor. transp. 37 no.3:16-22 Mr '56. (MLRA 9:5)
(Electric locomotives)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.T., inzh. KRAVCHENKO, A.I., inzh.

Using the adhesion weight of electric locomotives with oblique traction. Vest. TSNII MPS 17 no.8:23-27 D '58. (MIRA 12:1)

1.Novocherkasskiy elektrovozostroitel'nyy zavod.
(Electric locomotives)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Ye.Ye.

Effect of cortisone and hyaluronidase on the formation of post-operative adhesions in experiment. Vest.khim. 84 no.3:39-42 Mr '60. (MIRA 13:12)
(OPERATIONS, SURGICAL) (CORTISONE) (HYALURONIDASE)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

DOLGOPOLOVA, A.; GRIGOR'YEV, Yu., yurist

Our consultations. Sov.profsoiuzy 18 no.14:44-45 Jl '62.
(MIRA 15:7)

1. Zaveduyushchaya otdelom truda i zarabotnoy platy Tsentral'nogo komiteta profsoyuza rabochikh pishchevoy promyshlennosti (for Dolgopolova).
(Wages--Fisheries) (Sanatoriums) (Sick leave)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

SHURIN, S.P.; CHASOVSKIKH, G.G.; MIKHAYLOVA, L.P.; GRIGOR'YEV, Yu.A.; MELESHIN, S.V.

Effect of heparin on cells of malignant tumor in tissue culture. Biul. eksp. biol. i med. 57 no.3:85-88 Mr '64.
(MIRA 17:11)

1. Novosibirskiy meditsinskiy institut. Predstavlena deystvitel'nym chlenom AMN SSSR N.N. Zhukovym-Verezhnikovym.

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Yu.A., inzh.

Over-all automation of the performance of electric filters.
Energetik 10 no.2:14-16 F '62. (MIRA 15:2)
(Electric current rectifiers) (Electric filters)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

ACC NR: AP6035720 (A) SOURCE CODE: UR/0413/66/000/019/0082/0082

INVENTOR: Shashurin, Yu. S.; Ryushenko, N. M.; Grigor'yev, Yu. A.

ORG: none

TITLE: Machine for dispensing, bottling, and sealing mercury. Class 40, No. 186684

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 82

TOPIC TAGS: mercury, ~~mercury production~~, ~~mining engineering~~ packaging machinery, chemical plant equipment

ABSTRACT: To prevent oxidation and losses of mercury and improve sanitary work conditions, this mercury dispensing, bottling, and sealing machine (see Fig. 1) is provided with an immobile vertical cylindrical vacuum chamber; this chamber contains a hollow piston, power-driven piston rod, and bottling unit. The latter consists of a plunger with a magnet fixed to its bottom end; a holder or chuck and a spring are mounted in the piston cavity. The machine is complete with a vacuum pump, filling tube, lifting table, and pedestal. Orig. art. has: 1 figure. [WA-96]

Card 1/2 UDC: 621.798.37.4-189.2:669.791-982

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

ACC NR: AP6035720

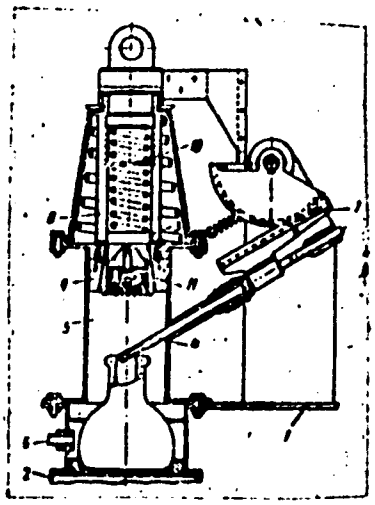


Fig. 1.

1 - Frame; 2 - lift table; 3 - sealing device; 4 - filling tube; 5 - vacuum chamber; 6 - nozzle; 7 - rack; 8 - rod; 9 - holder; 10 - spring; 11 - magnet.

SUB CODE: 13/ SUBM DATE: 04Jan65/

Card 2/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Yu.A.; SEDOV, V.A.

Overall automation of the electric system of electrostatic filters.
TSement 28 no.1:19-20 Ja-F '62. (MIRA 16:5)
(Automatic control) (Dust collectors)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRACHEV, Nikolay Pavlovich; GRIGOR'YEV, Yuriy Alekseyevich; MUKHIN, Aleksandr Fedorovich; KAKHOVSKAYA, O.G., red.izd-va; VEYTSMAN, N.R., red.; PAVLOVSKIY, A.A., tekhn. red.

[Accounting in the foreign trade of the U.S.S.R.] Uchet vo vneshnei torgovle SSSR. Moskva, Vneshtorgizdat, 1962. 300 p. (MIRA 16:2)

(Accounting) (Russia—Commerce)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

ACC NR: AP6035720 (A) SOURCE CODE: UR/0413/66/000/019/0082/0082

INVENTOR: Shashurin, Yu. S.; Ryushenko, N. M.; Grigor'yev, Yu. A.

ORG: none

TITLE: Machine for dispensing, bottling, and sealing mercury. Class 40, No. 186684

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 82

TOPIC TAGS: mercury, ~~mercury production~~, ~~mining engineering~~ packaging machinery, chemical plant equipment

ABSTRACT: To prevent oxidation and losses of mercury and improve sanitary work conditions, this mercury dispensing, bottling, and sealing machine (see Fig. 1) is provided with an immobile vertical cylindrical vacuum chamber; this chamber contains a hollow piston, power-driven piston rod, and bottling unit. The latter consists of a plunger with a magnet fixed to its bottom end; a holder or chuck and a spring are mounted in the piston cavity. The machine is complete with a vacuum pump, filling tube, lifting table, and pedestal. Orig. art. has: 1 figure. [WA-96]

Card 1/2 UDC: 621.798.37.4-189.2:669.791-982

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

ACC NR: AP6035720

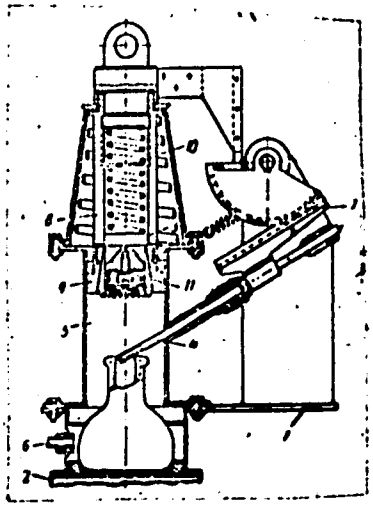


Fig. 1.

1 - Frame; 2 - lift table; 3 - sealing device; 4 - filling tube; 5 - vacuum chamber; 6 - nozzle; 7 - rack; 8 - rod; 9 - holder; 10 - spring; 11 - magnet.

SUB CODE: 13/ SUBM DATE: 04Jan65/

Card 2/2

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Yu.D., inzh.; SAYKO, A.V., inzh.

Design of the anchoring of suspension insulator chains with consideration of the lashing of wires. Elek. sta. 34 no.3:84-86 Mr '63. (MIRA 16:3)
(Electric lines—Overhead)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Yu. G.

USSR/Medicine - Radiology FD 216

Card 1/1

Author : Domshlak, M. P.; Grigor'yev, Yu. G.; Rayevskaya, S. A.

Title : Experiment on treating polycythemia with radioactive phosphorus

Periodical : Vest Rent. i Rad. 56-63, Mar/Apr 1954

Abstract : Radioactive phosphorus taken orally, does not have side effects. The optimum dose taken over a period of a month is considered to be six millicuries, although smaller amounts can be taken with success. Remission commences within 2-3 months after administering the radioactive phosphorus and continues for 2 1/2 years. Seven references; three USSR. Four tables.

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Yu.G., kandidat meditsinskikh nauk

Effect of radiations on primary functional changes in the cerebral cortex. Vest. rent i rad. no.5:3-10 S-O '54. (MLRA 7:12)
(RADIATIONS, effects,
on cerebral cortex)
(CEREBRAL CORTEX, effect of radiations on,)

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Yu. G.

"Some Results of the Use of Nicotinic Acid in the Clinical Aspect of Complications of Radiation Therapy," by Yu. G. Grigor'yev, Meditsinskaya Radiologiya, Vol 1, No 4, Jul/-Aug 56, pp 67-70

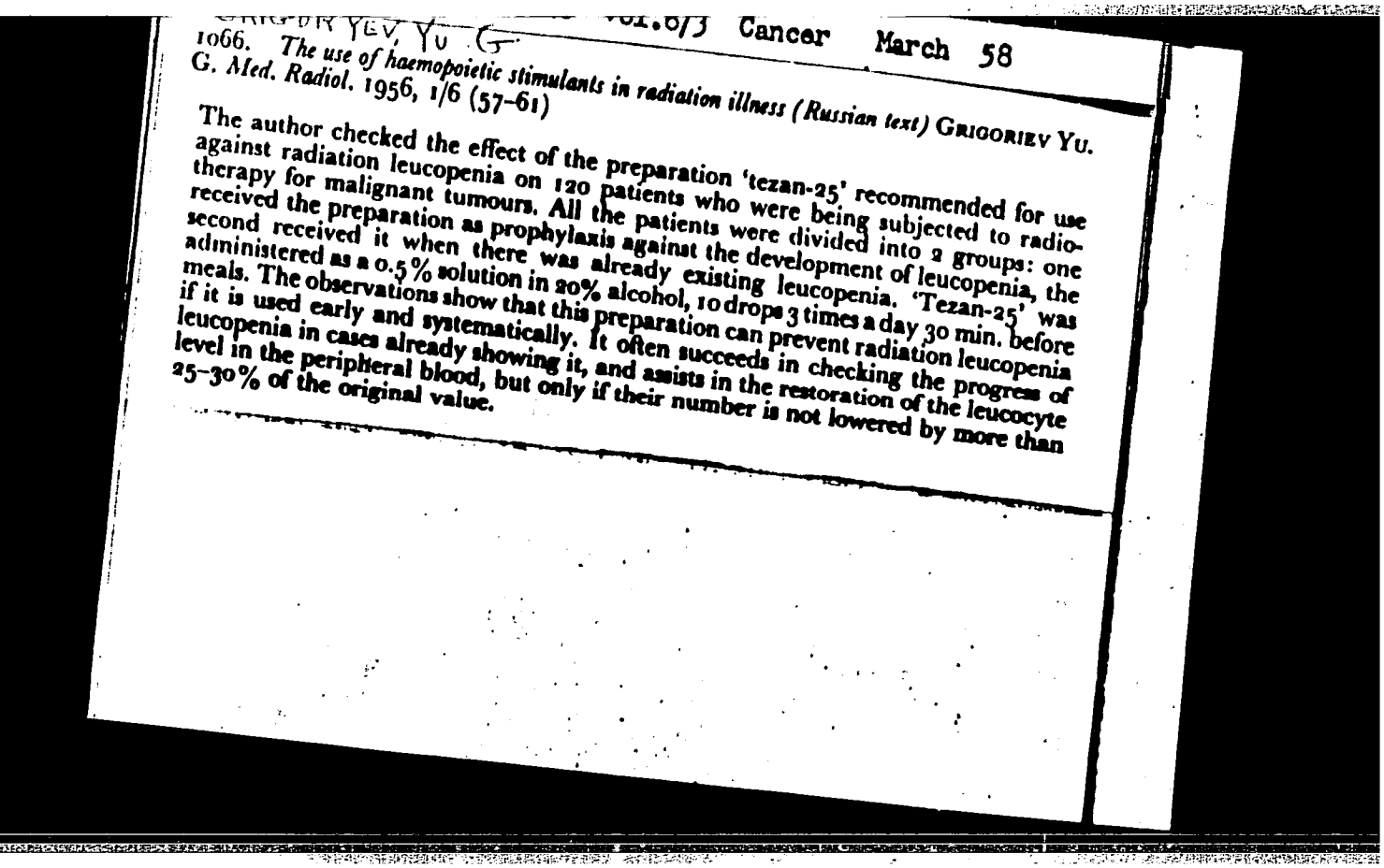
Studies were conducted on 50 patients under the direction of M. P. Domshlak. Irradiation was in connection with neoplasms or their prophylaxis. Doses ranged from 150 — 350 r for local and 25 — 50 r for general irradiation, and totaled 1,000 to 9,000 r for local and 150 — 200 r for general irradiation. Nicotinic acid was taken in .02 g per dose, 3 — 4 times per day.

Results on the use of nicotinic acid point to a negative effect on the prevention of the "general reaction." No positive influence of nicotinic acid was observed in connection with leukopenia which had developed as a result of irradiation. Nicotinic acid used in cases where the "general reaction" had already appeared showed definite positive effect.

Sum 1219

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682



GRIGORIEV, Yu. G. Vol. 6/3 Cancer March 58

1066. *The use of haemopoietic stimulants in radiation illness (Russian text)* GRIGORIEV YU. G. *Med. Radiol.* 1956, 1/6 (57–61)

The author checked the effect of the preparation 'tezan-25' recommended for use against radiation leucopenia on 120 patients who were being subjected to radiotherapy for malignant tumours. All the patients were divided into 2 groups: one received the preparation as prophylaxis against the development of leucopenia, the second received it when there was already existing leucopenia. 'Tezan-25' was administered as a 0.5% solution in 20% alcohol, 10 drops 3 times a day 30 min. before meals. The observations show that this preparation can prevent radiation leucopenia if it is used early and systematically. It often succeeds in checking the progress of leucopenia in cases already showing it, and assists in the restoration of the leucocyte level in the peripheral blood, but only if their number is not lowered by more than 25–30% of the original value.

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Yu. G.

Primary changes in the functional state of cerebral cortex in humans after radiational action. II. Yu. G. Grigor'ev. *Vestnik Rentgenol. i Radiol.* 31, No. 2, 3-7 (1956).—X-irradiation of the brain area after intake of stimulating doses of caffeine results in decreased amplitude by brain "waves" induced by the drug and produces slow arrythmic oscillations. In similar use of bromural before irradiation a slight increase in brain activity was noted some 1.5-2 hrs. later, but the immediate response to radiation was a slight drop of activity. Similar preadministration of quinine produced slow rhythmic oscillations immediately after irradiation, with a slight weakening of activity for 3-5 min. G. M. K[illegible]

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

GRIGOR'YEV, Yu.G., kandidat meditsinskikh nauk (Moskva)

Some problems in the classification and clinical aspects of acute radiation sickness in humans. Klin.med. 34 no.3:12-25 Mr '56.
(RADIATION SICKNESS, (MLRA 10:1)
classif. & clin. aspects (Rus))

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682(

"APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051682

USSR/Human and Animal Physiology (Normal and Pathological).
Effect of Physical Factors. Ionizing Emissions.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 80129.

Author : Grigor'yev Yu. G.
Inst :
Title : Change of Blood Pressure During Radiation Activity.

Orig Pub: Med. radiologiya, 1957, 2, No 1, 47-54.

Abstract: The blood pressure (BP) in rabbits was measured by the blood-dyeing method in the course of X-ray exposure (and after it) with doses of 630 r (with power of the dose 30 r in 1 minute). In all cases a significant drop of BP was observed, beginning, as a rule, in the course of exposure (both in the first minute of exposure and through 30-60 minutes after the beginning). In some rabbits, some increase

Card : 1/2

120

CIA-RDP86-00513R000